



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/711,238

09/03/2004

Jonathan D. Albert

H-427

5237

26245 7590 11/07/2008  
DAVID J COLE  
E INK CORPORATION  
733 CONCORD AVE  
CAMBRIDGE, MA 02138-1002

EXAMINER

LIANG, REGINA

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

11/07/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/711,238  
Filing Date: September 03, 2004  
Appellant(s): ALBERT ET AL.

---

David J. Cole  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7/2/08 and 6/2/08 appealing from the Office action mailed 10/4/07.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5802015	Rothschild et al	09-1998
5713342	Sato et al	12-1992
4922241	Inoue et al	05-1990

Art Unit: 2629

5900858	Richley	05-1999
4126854	Sheridon	11-1978
6285343	Brody	09-2001

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-4, 10, 12, 16, 18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al (US. 5,802,015 hereinafter Rothschild) in view of Sato et al (US 5,173,342 hereinafter Sato) and Inoue et al (US 4,922,241 hereinafter Inoue).

As to claim 1, Rothschild discloses an electrically active display comprising: an optoelectrically active display medium (the output device 14 is a TN liquid crystal display, see Figs. 7 and 8, and col. 7, lines 1, 38-52, col. 11, line 67), an adhesive layer (18) disposed on the second surface of the display medium, the surface of the adhesive remote from the display medium forming an external surface of the display, so that the display can be attached to a receiving surface by the adhesive (Fig. 2, the bottle 11 is a receiving surface).

Rothschild does not explicitly disclose the display medium comprising an optically transmissive electrode in contact with the first surface of the display medium. However, Sato is cited to teach a conventional TN liquid crystal display device having an optically transmissive electrode (2) in contact with the first surface of the display medium (1) as is well known in the art. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the display medium of Rothschild to comprise an optically transmissive

Art Unit: 2629

electrode (2) in contact with the first surface of the display medium in order to apply voltages to the electrodes of the display for generating the display image.

Rothschild as modified by Sato does not disclose the optoelectrically active display medium is a bistable display capable of changing its optical state upon application of an electric field thereto. Inoue is cited to teach a display device having a bistable effect with respect to an electric field and allows an arrangement of a display element for maintaining the stable state in order to solve the problems posed by the display elements using a TN liquid crystal (col. 5, lines 13-18). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rothschild as modified by Sato to utilize a bistable display medium as taught by Inoue so as to improve the display performance and to provide a display medium including the optical modulation element with a memory function such that a poor display screen state caused by an unstable state of elements located at an area excluding the effective display area can be prevented (col. 5, lines 23-42).

Claims 10 and 20 are product by process claims, the combination of Rothschild, Sato and Inoue teaches the display product as claimed, note the discussion of claim 1 above. Therefore, claims 10 and 20 are obvious over the combination of Rothschild, Sato and Inoue, see M.P.E.P. 2113.

As to 18, note the discussion of claim 1 above. The top electrode 2 of Sato corresponds to the first electrode; the bottom electrode 2 of Sato corresponds to the second electrode. The combination of Rothschild, Sato and Inoue would have the second electrode (2 in Sato) between the display medium and the adhesive layer (18 in Fig. 2 of Rothschild).

As to claims 2, 12, Sato teaches an optically transmissive layer (top substrate 3).

Art Unit: 2629

As to claims 3, 4, Sato teaches the electrode 2 comprises a metal oxide or indium tin oxide (col. 2, lines 27-28).

As to claim 16, the bottom electrode 2 of Sato corresponds to the rear electrode. The combination of Rothschild and Sato would have the rear electrode (2 in Sato) between the display medium and the adhesive layer (18 in Fig. 2 of Rothschild).

2. Claims 5, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild, Sato and Inoue as applied to claims 1 and 10 above, and further in view of Richley (US 5,900,858).

Rothschild as modified by Sato and Inoue does not disclose the display medium comprising bichromal microspheres. However, Richly teaches a panel display with utilizes a plurality of bichromal ball. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the display device of Rothschild as modified by Sato and Inoue to have the bichromal microspheres display medium as taught by richly so as to provide a flexible display device which has memory capabilities (col. 1, lines 12-17 of Richley).

3. Claims 6, 7, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild, Sato and Inoue as applied to claims 1 and 10 above, and further in view of Sheridan (US 4,126,854).

Rothschild as modified by Sato and Inoue does not disclose the display medium comprising an encapsulated electrophoretic medium. However, Sheridan teaches a panel display device comprising an encapsulated electrophoretic medium comprising at least one species of

Art Unit: 2629

particles dispersed in a fluid medium (col. 2, lines 22-25, col. 3, lines 35-42). Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the display panel of Rothschild as modified by Sato and Inoue to have encapsulated electrophoretic display medium as taught by Sheridan so as to provide a flexible display device which has memory capabilities (last two lines in the abstract of Sheridan).

4. Claims 8, 9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild and Sato as applied to claims 1 and 10 above, and further in view of Brody (US 6,285,343).

As to claim 8 and 11, Rothschild as modified by Sato does not disclose at least one conductive extending from the electrode through the display medium. However, Brody teaches a panel display device having an extending electrode (interconnecting conductor 30 in Figs. 4c, 11) extending from one side of the display to an opposite side of the display with the drive circuit on opposite side of the display. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the display panel of Rothschild as modified by Sato to have an interconnecting conductor as taught by Brody such that electrically connecting the drive circuit adjacent the second surface with the electrode along the first surface.

As to claim 9, Fig. 4c of Brody teaches at least one contact pad (19) connected to the interconnecting conductor 30.

#### **(10) Response to Argument**

In response to appellants' argument that "There is no logical way to combine Rothschild, Sato and Inoue" on page 14, the test for obviousness is not whether the features of a secondary

Art Unit: 2629

reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Therefore, appellants' remarks regarding Rothschild, Sato and Inoue are not persuasive since the combination of Rothschild, Sato and Inoue teaches the limitation as claimed in claims 1-4, 10, 12, 16, 18, and 20 as set forth in the Final rejection.

Appellants' remarks regarding Sheridan on page 15 (section C) are not persuasive. Sheridan states "the display panel 4 includes a distribution of minute particles 14 which are optically anisotropic. The particles 14 are surrounded by a transparent dielectric fluid.... In addition to the particles 14 and the dielectric liquid which surrounds those particles" (col. 3, lines 35-42), which reads on "an encapsulated electrophoretic medium comprising at least one species of particles dispersed in a fluid medium" and "an encapsulated electrophoretic medium" as claimed as claimed in claims 6, 7, 14 and 15.

Appellants' remarks regarding Brody on pages 15-16 (section D) are not persuasive. Figs. 4c and 11 of Brody clearly show the interconnecting conductor 30 extending through the display medium.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Art Unit: 2629

/Regina Liang/

Primary Examiner, Art Unit 2629

Conferees:

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629

/Richard Hjerpe/

Supervisory Patent Examiner, Art Unit 2629